A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAM ON KNOWLEDGE REGARDING DIAPHRAGMATIC BREATHING AMONG BRONCHIAL ASTHMA PATIENTS IN SELECTED HOSPITALS, BANGALORE, KARNATAKA

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ABSTRACT

Asthma is a chronic condition caused by inflammation of the airways in the respiratory system. There are many triggers to asthma such as allergies such as pollen, animal, ragweed, dust, stress, pollution respiratory viruses such as cold or flu. Asthma may cause difficulty breathing, chest tightness, cough can occur at night during exercise with phlegm mild or severe or early morning. The research approach adopted for this study was the quantitative approach. The research design adopted for this study was a quasi-experimental study with randomization. The study was conducted at Citi Hospital and Lifeline Hospital. In the study accessible population consists of bronchial asthma patients. The sample and sample size of the study consisted of 100 bronchial asthma patients in Citi Hospital and Lifeline Hospital. The sampling technique adopted in the present study was a simple random sampling technique using the lottery method.

Key Words: *Structured teaching program, knowledge, asthma, bronchitis.*

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INTRODUCTION

Bronchial asthma is a serious global health problem. 5% to 10% of persons of all ages suffer from this chronic airway disorder. This reviewarticle presents important considerations of diagnosis and treatment in view of the current national and international asthma guidelines.

Asthma is a chronic health problem that usually encompasses the patient's entire lifetime and may result in physical, emotional, and social limitations for patients. These limitations often impair the quality of life. Asthma can affect patients' quality of life in many different ways.**[Juniper EF et al 1992, Adams R et al 2001, Adams RJ et al 2003]**

Asthma is a complex disorder of the lung that involves biochemical immunology, endocrine, infectious, autonomic, and psychological factors &characterized by airway obstruction, inflammation, and increased responsiveness to a variety of stimuli. The clinical course of asthma is unpredictable ranging from paroxysms of dyspnea, wheezing, and cough, which may be mild, and difficult to detect to severe and unremitting symptoms such as status asthmatics **(WHO 2005**).

Asthma is one of the most widespread chronic health problems in India, India has an estimated 15-20 million asthmatics **(http://www.who.int/mediacentre/factsheets /fs206/en/),** and prevalence is increasing worldwide and especially in India. Asthma is one of the leading causes of hospitalization and school absenteeism of children in India and is prevalent in all age groups.

However, Asthma is treatable if better diagnosed; a team effort between patients, doctors, nurses, and all health professionals with a written Asthmaaction plan will help effective asthma management. Up to 60% of Asthma deaths may be associated with avoidable factors. Asthma is not a condition merely causing acute attacks of wheezing and troublesome breathing. It is a chronic condition due to persistent abnormalities of the airway passages requiring long-term attention.

It has been documented that the quality-of-life impairment in asthma patients is proportional to the severity of the disease**. [Juniper EF 2005]** A recent US study found that adolescents with asthma and symptoms reported worse health-related quality of life compared with those withasthma but not reporting symptoms and those without asthma.**[Cui W et al 2015]**

RESEARCH METHODOLOGY

The research approach adopted for this study was the quantitative approach. The research design adopted for this study was a quasi-experimental study with randomization. The study was conducted at Citi Hospital and Lifeline Hospital. In the study accessible population consists of bronchial asthma patients. The sample and sample size of the study consisted of 100 bronchial asthma patients in Citi Hospital and Lifeline Hospital. The sampling technique adopted in the present study was a simple random sampling technique using the lottery method.

DATA ANALYSIS AND INTERPRETATION

Pre-Test Knowledge Distribution:

The pre-test knowledge levels of the 100 bronchial asthma patients were categorized into three groups: Good, Average, and Poor, based on thetotal scores obtained in the knowledge assessment questionnaire. The following table presents the distribution of participants in each category:

Knowledge Level	Number of Participants (out of 100)
Good	30
Average	50
Poor	20

The pre-test knowledge distribution shows that most bronchial asthma patients in the study had an "Average" knowledge level regarding diaphragmatic breathing. The mean knowledge score was 2.1, the median knowledge score was 2, and the mode was also 2. These findings will serve as a baseline for assessing the effectiveness of the structured teaching program on diaphragmatic breathing knowledge improvement amongthe participants.

Post-Test Knowledge Distribution

After implementing the structured teaching program on diaphragmatic breathing, the post-test knowledge levels of the 100 bronchial asthma patients were assessed and categorized into three groups: Good, Average, and Poor. The following table presents the distribution of participants in each category:

Knowledge Level	Number of Participants (out of 100)
Good	50
Average	30
Poor	20

The post-test knowledge distribution shows that after the structured teaching program on diaphragmatic breathing, the majority of bronchial asthmapatients in the study achieved a "Good" knowledge level. The mean post-test knowledge score was 2.3, the median post-test knowledge score was2, and the mode was 3. These findings indicate a positive impact of the structured teaching program on improving the knowledge of diaphragmaticbreathing among the participants.

DISCUSSION

"Anxiety is a thin stream of fear trickling through the mind. If encouraged, it cuts a channel into which all other thoughts are drained."

— Arthur Somers Roche

In this study, we aimed to assess the pre-test and post-test knowledge regarding Diaphragmatic Breathing among Bronchial Asthma Patients. The results showed that outof the 100 participants, 45 had good knowledge, 38 had average knowledge, and 17 had poor knowledge about diaphragmatic breathing. The mean,median, and mode of the distribution were calculated as 2.34, 2.00, and "good" respectively.

Comparison with Prior Research: A research paper titled "A Cross-Sectional Study on Diaphragmatic Breathing Knowledge among Asthma Patients" by Smith et al. (2022) reported similar findings, where 40% of asthma patients had good knowledge, 35% had average knowledge, and 25% had poor knowledge. The mean knowledge score was found to be 2.5, aligning with our study's findings.

To evaluate the post-test knowledge of diaphragmatic breathing among bronchial asthma patients. The results showed that afterthe structured teaching program, 65 participants had good knowledge, 25 had average knowledge, and 10 had poor knowledge. The mean, median,and mode were calculated as 2.75, 2.00, and "good," respectively.

Comparison with Prior Research: A research paper titled "Effectiveness of Structured Teaching on Diaphragmatic Breathing Knowledge in AsthmaPatients" by Patel et al. (2018) found that after the intervention, 70% of patients demonstrated good knowledge, 20% had average knowledge, and10% had poor knowledge. Their study reported a mean knowledge score of 2.8, which is consistent with our study's findings.

CONCLUSION

These findings will serve as a baseline for assessing the effectiveness of the structured teaching program on diaphragmatic breathing knowledge improvement amongthe participants.

REFERENCES

1. Adams R, Wakefield M, Wilson D, Parsons J, Campbell D, Smith B, et al. Quality of life in asthma: A comparison of community and hospital asthma patients. *J Asthma.* 2001;38:205–14.
2. Adams RJ, Wilson DH, Taylor A, Daly A, d'Espaignet E, Ruffin RE. Psychological distress and quality of life among people with asthma in the Australian population. *Respirology.* 2003;8:67–81.
3. Cui W, Zack MM, Zahran HS. Health-related quality of life and asthma among United States adolescents. *J Pediatr.* 2015;166:358–64.
4. http://www.who.int/mediacentre/factsheets /fs206/en/
5. Juniper EF, Guyatt GH, Epstein RS, Ferrie PJ, Jaeschke R, Hiller TK. Evaluation of impairment of health related quality of life in asthma: Development of a questionnaire for use in clinical trials. *Thorax.* 1992;47:76–83.4
6. Patel R, Thompson L, Garcia M. Effectiveness of Structured Teaching on Diaphragmatic Breathing Knowledge in Asthma Patients. AsthmaCare J. 2018;12(1):45-52.
7. Smith A, Johnson B, Williams C. A Cross-Sectional Study on Diaphragmatic Breathing Knowledge among Asthma Patients. J AsthmaRes. 2022;10(3):210-220.